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THE VOLLEYBALL SIMULATOR



1. The Game of Volleyball

In a game of volleyball two teams, each with 6 players, compete against each other. Both teams try to prevent the ball from landing in their own half. To stop the ball from falling on the floor in their area, and to play the ball back to their opponents, each team is allowed three strikes of the ball. The ball remains in play until it touches the floor, the ceiling, the wall or any other object, or a player makes a mistake (for example; 4 strikes of the ball, or going over the middle line).

Play is begun by throwing the ball onto the court. Only the team who makes this throw can win points. If the opposite team wins the rally, for example through a bad serve, the server is changed. When a change of server is made, the players in the team which now makes the serve must all move once in a clockwise direction.

The first team to win three sets wins the match ('best of five'). In order to win a set, a team needs at least 15 points. We say 'at least' because there must be a difference of a minimum of two points between the scores to win a set.

2. Starting the Program

Amstrad CPC:

Type run "volley" + ‹ENTER› .

The Main Menu

At the start of the program a menu will appear at the bottom of the screen. All options and changes to the program can be reached from here. With help from the cursor keys ‹LEFT› and ‹RIGHT›, particular program points may be reached. By pressing the ‹COPY› key the respective point is confirmed. Four program points exist in the main menu:

PLAY - If there is no previously played game, or if all previous games have been ended recently, meaning one team has won in three sets, you can start a new game directly. If a game has been interrupted, with the exception of a 'time-out', then a new menu appears. You can then choose whether you want to continue the game or start a new game. The options are CONTINUE or NEW GAME. After your choice you will go into the appropriate game.

STARTING THE PROGRAM

KEYS - This is the actual key to the program. If you have chosen this program point, then a sub-menu will appear. Here you will be asked whether the computer should take over the left side. If you answer YES, you will be asked about the right side immediately. If you choose NO, it is suggested that you would like to take over certain functions on the left side. Therefore you will be asked in the next sub-menu by how much you would like to take control. The following will appear:

LEFT SIDE: NONE HALF FULL COMPUTERCONTROL

If you have chosen NONE COMPUTERCONTROL, you control all your figures yourself and bring them to where you would like them to be. You choose the direction in which the ball should go. If you have chosen HALF COMPUTERCONTROL, your figures will be taken to their appropriate places by the computer, but referring to your tactics - you don't need to interfere. However, you can choose the direction in which the ball will be played by setting the direction and pressing the fire button.

If you have chosen FULL COMPUTERCONTROL, the computer moves your figures and controls the ball. If you have set tactics in the Tactics Editor, these will be referred to. It is your task to choose the right tactics for the right moment. You should not underestimate this because it is ideal for beginners.

If you have chosen NONE or HALF, you will also be asked how many figures you and the other players wish to control. Note that it is possible for you and your friends to control all six figures, allowing you to build a complete team. But you should bear in mind that space will be quite tight, even if you are working with two joysticks. If you have chosen the recommended number of players, the computer will ask you to define the required keys for control; up, down, left, right and fire. The same procedure needs to be done for the right side. Theoretically twelve players can take part (respectively 14, from which 2 will control the various tactics). Please note that this is impossible because of lack of space on the keyboard. A hardware expansion could be the solution to this problem. Problems can arise: When three keys are pressed, the computer sometimes recognises this as being four keys. The solution is to try various keys to see which are best recognised by the computer.

LOAD - After the program has been loaded, 10 SET UP, 10 DEFENSE and 10 OFFENSE tactics will be in memory. Also, the technical control elements (CONTROL) are in memory. If you want to load the tactics that you have been

editing with the help from the Tactics Editor, you should choose the program point LOAD. Afterwards choose the tactic category (the control block). After you have chosen, you will be asked for a name for your tactics (your control block). This name must match with the name that you have already given in the Tactics Editor. Now you may insert the disk on which the tactics are located. After this press ‹ENTER›. The computer will now load the appropriate tactics and return back to the main menu. In case you have decided otherwise and don't want to load any other tactics, simply press ‹ENTER› when you are asked for the name. The tactics enclosed in your program have the name LEVEL0. This is very helpful if your own tactics haven't worked as you hoped they would. Further details of the various tactics and the control area can be found in the paragraph `Tactic Editor'.

COLOUR - In this sub-menu you may choose your own personal colours. This can be very important if you are using a green monitor. Using the cursor keys ‹LEFT› and ‹RIGHT› you may choose the colours you wish to change. Changes are made with the cursor keys ‹UP› and ‹DOWN›. When you find a colour combination that you like, press ‹COPY› and you will return to the main menu.

The Game

If you have chosen PLAY in the main menu, you will be in the actual game. As in league games, the players are set out on the base line and then take up their positions. This means that they take up the place predicted by the recently chosen tactics (SET UP).

The numbers of the current tactics can be recognised by the three displayed monitors which you can find on the top of your screen. The left monitor shows the current SET-UP tactics. The monitor in the middle shows the defense tactics, and the monitor on the right shows the offense tactics. You can choose your tactics at any point in the game. For the left side it is ‹1›, for SET UP, ‹2› for DEFENSE AND ‹3› for OFFENSE. If you press these keys, the number increases until it reaches 9, and then returns to 0. If you also press the ‹TAB› key at the same time as the numbers ‹1›, ‹2› or ‹3›, the number decreases by one.

The same should be done for the right side, except that the keys ‹-›, ‹ˆ› and ‹CLR› should be used. In order to reduce the number also press ‹ENTER› (as these keys are used for these purposes they can't be used for controlling the figures). Please note: Independent of the choice you have made in the sub-menu KEYS (NONE, HALF, or FULL), the figures will be guided to their positions given to

them by the tactics of the computer. Therefore, you can not control the figures yourself. This happens in order to avoid mistakes. After the service has been performed, providing that you have chosen NONE COMPUTERCONTROL, you can control the figures totally alone. The position your figure takes for the service is also determined by the SET-UP tactics.

Next to the above mentioned keys, there is a further key which has a special significance: This is the ESC key, it allows you to return to the main menu from the game. This corresponds with a `time-out' in volleyball. Of course, you may only take such a `time-out' between ball changes, not during. In a `time-out' it is possible to load new tactics or alter the keyboard controls (further information see "The Main Menu").

Atari ST / Amiga:

Amiga only

When you are asked for the "Workbench", insert the Volleyball disk into disk drive df0. The program will start automatically.

The Main Menu

When the main menu appears on the screen you are given a choice of either one of three modes or loading the Tactics Editor:

Player 1 - Computer

This is chosen by pressing the F1 key. In this mode you can control one of the players in the home team with the joystick in port #0. The remaining 5 players are controlled by the computer, as well as the six players in the opposite team.

Player 1 - Player 2

This is chosen by pressing the F2 key. In this mode two players can play. One player in the home team is controlled with the joystick in port #0. One player in the guest team is controlled with the joystick in port #1. The remaining players are controlled by the computer.

Player 1 and Player 2 - Computer

Chosen with the F3 key. In this mode two players can play. Each person controls a figure in the home team. The remaining players are controlled by the computer.

Loading Tactics

Chosen with the F4 key. Firstly you are asked to insert the tactics disk into the disk drive. You can now load tactics, either from the Tactics Editor or ones that you have constructed yourself. After loading, the program returns to the Main Menu.

EXIT (only Amiga)

Selected by pressing the ESC button. You then go to the Tactics Editor.

The Game

If you have chosen mode 3 the game of Volleyball will begin according to the normal playing regulations (see appendix). This means that you have previously interrupted a game, perhaps by pressing the ESC key (to load tactics for example). Afterwards you will be asked if you wish to continue your old game or if you wish to start a new game afresh.

C64:

Insert the disk into the disk drive and type LOAD "*",8,1 and press RETURN. (Joystick port #2). Choose game speed by moving the joystick left and right. Confirm with the firebutton. Your options are SLOW, MEDIUM and FAST. Choose either ONE PLAYER (play alone against the computer), or TWO PLAYERS (play against as second player) by moving the joystick up and down. Confirm with the firebutton.

The Main Menu

After the start of the Volleyball Simulator you will arrive at the main menu. From here all options can be reached and changed. With help from the joystick the particular program point can be chosen and this is then confirmed by pressing the fire button.

PC:

THE VOLLEYBALL SIMULATOR on the PC works in conjunction with all normal graphic cards for PC compatibles: CGA, EGA, VGA,Hercules and Tandy graphics are all supported. All graphic cards are automatically recognized by the program. The program requires at least 312 KByte.

For loading please turn on your PC and boot MS DOS as usual. After DOS has loaded and the DOS prompt appears (normally A› or C›) please type A: in order to switch to drive A. Then insert disk 1 into drive A and type: VOLLEY to begin the game normally (VOLLEY Q to play without sound)

You have the option to control the overall game speed by entering a number between 1 and 3 as a parameter: 1 - slow 2 - medium 3 - fast Please note that slow PC's (PC/XT with 4.7 Mhz) will only operate in mode 1 (slow). Only PC's with 8

Mhz or more and AT's are capable of using the two faster modes.

Example: To start the game without sound in the fast mode you must type VOLLEY 3 Q If you have a CGA or Hercules card or want to use the tactics editor, you must change disks when the program asks you to do so. Please press any key after changing disks.

To install the VOLLEYBALL SIMULATOR on a hard disk, please insert disk 1 into disk drive A and type: INSTALL C: to install on drive C or INSTALL D: to install on drive D (if available). The game will then be copied completely into a subdirectory called VOLLEY. No hidden files or copy protection will be written to the hard disk. You can start by entering the subdirectory with CD VOLLEY. The game can then be started by typing one of the commands described above. The original disk 1 must be in the drive, however, because the copy protection will be checked there.

The Main Menu

After the title pages have appeared with the accompanying digitized music, the main menu will appear. On the screen you are given a choice of one of three modes or the tactics editor:

Player 1 - Computer

This is chosen by pressing the F1 key. In this mode you can control one of the players in the home team with the joystick in port #0. The remaining 5 players are controlled by the computer, as well as the six players in the opposite team.

Player 1 - Player 2

This is chosen by pressing the F2 key. In this mode two players can play. One player in the home team is controlled with the joystick in port #0. One player in the guest team is controlled with the joystick port #1. The remaining players are controlled by the computer.

Player 1 and Player 2 - Computer

Chosen with the F3 key. In this mode two players can play. Each person controls a figure in the home team. The remaining players are controlled by the computer.

After choosing one of the three game modes, a selector box appears where you must choose the two teams. Use the cursor keys to highlight the teams you want and select them with ENTER. If there should be no teams on your disk, you must put in one of the game disks, or your team disk.

The Game

If you have chosen one of the first three modes, the game of volleyball will

begin according to the normal playing regulations (see appendix). You can abort the game at any time by pressing CONTROL-C. WARNING - If you press CONTROL-C whilst a game is play, the game will be aborted immediately. The team data on the disk will not be updated with the data from the aborted game.

3. The Technical Element

During a ball change you have the possibility to play the ball further. The way of playing the ball is called `the technical element'. It is possible to differentiate between 7 different basic techniques. Additionally, you can specify in which direction the ball will be played, and to where the body will move. With the VOLLEYBALL SIMULATOR all arrangements are possible. It would be very confusing and unhelpful if you were able to pick a required element at any time in the game. Therefore a very sensible, almost intelligent, control has been integrated into this program. This control `knows' which tactics are best and arranges them for you. This may sound a little confusing at first, but during the game you probably won't waste a single thought regarding the controls. This is because the control is not only extremely helpful, but also logical.

C64:

After play has begun the computer will guide your figure to a favourable playing position. You need only use the appropriate shot at the right moment. You may, perhaps, ask what the appropriate shot is. These easy rules will help you: "Dredge" the first ball, "swish" the second ball, and generally you should "dredge" the third ball. But all rules have exceptions. Any game played strictly by the rules soon becomes boring. If you stand on the forward line, the computer will guide your figure to a favourable position to smash the ball. You will recognise that the figure looks towards the net. If the opposition has smashed the ball well, the computer will take your figure to the net to block. It may sound as though the computer is totally controlling the game, but this is not so! The computer only plays shots in order to help you and ease the game. You can, of course, play any shot you wish, providing that you correct your position first. Fundamentally, every shot is played by pressing the firebutton. See below to see how each shot is differentiated.

The approximate direction of the ball is logically the direction in which the figures faces. In order to change the direction, the joystick must be pushed in the

direction you wish the ball to go, as soon as the ball is touched.

The striking strength is determined by pressing the firebutton. The longer the button is pressed, the harder the ball will be struck. The playing angle is fundamentally fixed by the shot. However, you can play especially high or low balls by pushing the joystick either in the playing direction (the opposite side), or the non- playing direction (your side) as soon as the ball is touched.

PC:

You take the ball by pressing the button on the joystick at exactly the right moment. The player you control is marked by a black square at his feet. The player or position the ball is aiming for is marked by a white square. When there is no player heading for the white square, it is your job to run there and get the ball. If you fail, the other team will get a point, or the service.

If you were unable to take the ball, you can control your aim by moving the joystick while still holding the button. If you keep the joystick in the central position, the computer will automatically aim for you.

If another player in you team is about to take the ball, you can take control of him by pressing the button once.

To bring your player into the right position, use your joystick or the following keys: The left team uses the cursor keys (on the numeric keypad). The right team uses the keys E, S, D, and X for moving and the left shift key and the fire button.

3.1 The Service

The service is needed to bring the ball into play. It can be performed when all players have taken up their positions and are standing still.

Amstrad CPC:

The figure who will perform the service dribbles the ball. Now press your defining keys for <HIGH> or <LOW>. The figure takes the ball into his hand and moves upwards or downwards. When you have found the best position to perform your serve, press and hold the fire button (maximum 4 seconds). This determines the height of the throw and strength of the service. When the fire button is released, the player will serve the ball. Now choose to where you wish the ball to be played using the joystick or the keys in one of the 9 possible directions (up, up-

right, right etc.). The ball now falls in the direction of the floor; you should wait for the appropriate moment and then press ‹FIRE›. The figure will perform the service.

C64:

You must perform the service with your figure who automatically stands in the service position. You can move your figure within the service area up or down with the joystick. You can determine the strength with which the ball will be thrown with the length of time you press the firebutton. When the firebutton is released, the ball will be thrown. Now you must hit the ball at the correct moment, either overarm (STRIKE IN 1), or underarm (STRIKE IN 11). In order to strike the ball overarm, push the joystick upwards. If you want to strike the ball underarm, you must push the ball downwards at the correct moment.

Atari ST / Amiga:

The figure who will perform the service dribbles the ball. Now push the joystick upwards or downwards - the figure will take the ball into his hand and move upwards or downwards. When you have found the best position to perform your serve, press and hold the fire button (maximum 4 seconds). This determines the height of the throw and strength of the service. When the fire button is released, the player will serve the ball. Now choose to where you wish the ball to be played using the joystick or the keys in one of the 9 possible direction (up, up-right, right etc.). The ball now falls in the direction of the floor; you should wait for the appropriate moment and then press ‹FIRE›. The figure will perform the service.

PC:

If the player you are controlling has to make the service, press the button once to start dribbling. A second push of the button starts the service. The ball gets thrown into the air. When it comes down, perform the service by pushing the button a third time. The position of the joystick determines the flight path of the ball.

3.2 Lower Play – Dredge

The lower play is basically used for executing the first of the three possible ball-touches. Please notice that a block does not count as a ball-touch. As long as you do not stand too close to the net, from where you could theoretically perform a block, and the ball comes from the opponents side, you may perform lower play.

Amstrad CPC / Atari ST / Amiga:

Press the fire button to execute this shot. The length of time the fire button is pressed determines the strength of the shot. Please note that due to the fact that movement is continuous, it is not possible to vary by very much, as while serving. After having pressed the fire button, you may also determine the direction in which the ball will be played. Notice that your figure stands still while you have the fire button pressed.

C64:

Press the firebutton when the figure is looking towards the net.

PC:

Press the fire button to execute this shot. While pressing the firebutton you can determine the direction in which the ball will be played.

3.3 Lower Play – Pike

Amstrad CPC / Atari ST / Amiga / PC:

This is performed when your figure runs forward while you press the fire button. This technique is necessary to save very distant and very low balls. No other technique will offer you the possibility to play such distant balls. However, no other technique is so difficult to execute. It is very easy to jump under the ball, or miss the ball entirely (through not reaching far enough). Because of this, you should only perform a 'pike' in an emergency. You can influence the strength and direction of the shot as described above.

C64:
Joystick is pushed in the direction of the net (the figure must not be in the attacking zone).

3.4 The Japan Roll

Amstrad CPC only: This is performed when your figure runs sideways (upwards or downwards) while the fire button is pressed. This technique allows you to reach balls which descend sideways to your figure, but very far away. This is similar to the movement speed, which has been mentioned regarding the `dive'.

3.5 Upper Play - Swish

In every top team, there are one or two players who are specialised in performing this shot. These players are known as `placers'. They will often be named as the `head' or `soul' of the volleyball team. They supply the impulses for a successful or unsuccessful attack. Because of this advantage you accept the facts that are not tall or strong as most attackers are. Without a good `placer' it is extremely difficult to build up a good attack. Perhaps there is someone in your circle of friends who would like to take over this roll, when you yourself do not feel competent enough. In the game it is possible to distinguish between 2 `swishing' situations:

i) The `placer' plays the ball to a middle player when it is the second ball-touch. Here it is very important that the player stands at the front of his playing half at right angles to the net (i.e. the figure looks up or down). Only in this position is the above play possible.

ii) The `swish' is played on the third ball-touch over the net. Here the figure stands at the back of his playing half, facing the net. For both variations, the ball is guided as explained above.

3.6 The Attacking Shot

This shot normally smashes down a set-up ball. Therefore you should try to hit this ball with an open hand, using all your weight, so that the opposition has no possibility to stop the ball. When you have aimed for the right target, the ball

should not only land easily on the floor, but you should also have given your opponents a small psychological kick. This is achieved when the ball is played to the corner where there are no players, or when the ball is smashed to the middle of the court with your full weight. Such balls can discourage the opposition and make your team strong.

The smash can be played by the particular figure who is standing in the front half of the court facing the net, and who wants to play the ball with the second or third ball-touch across to the opponents half. Here you can distinguish between three different forms of attacking shots:

i) `**Normal' attacking** is very powerful and fast. It is recommended when your figure is standing very close to the net and there are no, or only one figure, to block. This shot is very difficult to control, and often leads to a rally being won immediately. To achieve this shot, you should push and hold the joystick in a forward position after pressing the fire button (forward-left, forward, forward-right).

ii) **The curved shot.** This shot is used when you are not directly next to the net. It can be very useful when a back player would like to attack, bearing in mind that they are only allowed to jump behind the 3m line. This shot has three directions and can be found in the three middle joystick positions.

iii) **The lob.** When your figure is directly next to the net and he sees a 2 or 3 man block opposite, then the lob is a profitable shot. The lob falls a little behind the block, and is especially efficient when the opposition have no `security' player behind the block. This player stands very near to the blocking players, supporting them, rebounding the ball or reaching a lob and playing it further. If you want to employ this technique the back three joystick positions are reserved. Of course you should only attempt this shot when you are familiar with the control block.

iv) **The block.** The block is the only defence against a hard, attacking shot. But it is not only that; in modern volleyball it has become an aggressive attacking shot. When a very hard ball is played directly back into the opponents half through a block, it is more difficult to reach. The block can be played when the figure is very close to the net, and the ball comes from an opponent.

v) **Head play.** The volleyball regulations state that the ball may be played with any part of the body above the waist. In practise though, it has been recognised that a ball not played with the arms either counts as a double-touch, or as a guided ball - and the whistle is blown to end the rally. The only exception to this rule is a

ball played with the forehead, similar to a `header' in football. Then no whistle will be blown. This type of play can only be used in emergencies, when you unexpectedly `meet' with the ball.

C64:

To play a "swish", the figure must be looking up or down. To play a "smash", push the joystick in the direction on the net when the player is in the attacking zone. To play a "block", push the joystick in the direction of the base line when the figure is standing in the attacking zone.

4. The Score Table

In the middle of the top quarters of your monitor, you will find the score table. On it you can read the current playing situation. The HOME team is the left team, and the GUEST team is the right team.

Amstrad CPC:

The team whose score is written in black has the right to serve, and therefore the opportunity to win points. The opposition's score is written in blue. (Note: This is only so when the colours have not been changed in the main menu.). On the left and right side of the score table are the numbers 1 to 3. These are the previously won sets of the respective teams.

5. The Referee

Amstrad CPC:

Next to the score table you will see a window through which you can follow the scoring of the referee. Scoring is done according to the `Official International Rules for Referees'. Here are the most important instructions:

- The Referee stretches his arm out to the left or right: He shows which team has the right to serve.
- The Referee stretches his arm out and points to the floor: The ball which touched the floor was inside the playing area.
- The forearms of the Referee are raised vertically with open hands with the palms facing outward: The ball was out.
- The Referee shows four fingers: The ball has been touches four times by a team.

- The Referee lays the palm of one hand across the fingers of the other hand which is held perpendicular (making a `T'): Out. The forearms are crossed across the chest with open hands: Set or end of game.
- The forearms are raised over the head: A back player plays an attacking shot against the rules.
- A hand touches the top edge of the net: The ball touched the net during a service or a player invaded his opponents half.
- The Referee shows a card: If the card is yellow (white), he is giving a warning. If it is red (blue), he gives a punishment (penalty point or loss of service).
- The Referee shows two cards: If both of the cards are in one hand, a player must stand out for a set. As there are no substitutes, this means that a set is automatically lost. If the cards are in two hands, a player is disqualified for a game, and for the same reasons the team loses the game.

Atari ST / Amiga / PC:

In front of the stands is the referee who makes sure that the rules are followed. If a mistake is made, he points his arm in the direction of the team which will now make the serve.

6. The Tactics Editor

The tactics editor allows you to design your own tactics. Additionally, with this program you can alter the technical elements, for which the joystick (or keyboard) is normally `reserved'. This will be precisely explained.

Important: The Tactics Editor is not absolutely necessary if you simple want to play volleyball with the "Volleyball Simulator". If you find the Tactics Editor a little complex, you should simply load the pre-designed tactics until you feel ready enough to bring new impulses into the game.

Amstrad CPC:

To load the program: run "TACTED" . After loading is complete the title screen will disappear and you will be asked: (J)oystick or (K)eyboard.

THE TACTICS EDITOR

The Main Menu

Now you are in the main menu. Here you find 13 different menu points. These fall into 4 main groups: LOAD; the changing instructions EDIT; the saving instructions SAVE and finally EXIT. You can reach each of these points with a joystick or keyboard, depending on what you have chosen before.

LOAD

Here you will find the four following program points:
LOAD SET UP
LOAD DEFENSE
LOAD OFFENSE
LOAD CONTROL

If you have chosen one of these points the screen will be deleted and you will be asked for the name of the tactics or control block that you wish to load. Please note that there must be existed tactics with the name you have chosen. On your disc or cassette you will find tactics with the name LEVEL0. These tactics are loaded with the program. This means the tactics which are in the memory are the tactics that you work with in 'The Volleyball Simulator' after the program has started. The loaded tactics stay in the memory until you either load new tactics or leave the program. When the tactics have been found and loaded you return to the main menu.

EDIT

Here you learn more about the character and building up of tactics and the control block.

EDIT SET UP

These position tactics explain the positions of the team members when they serve or receive a serve. This is easier when the team serves. This is because the opponent needs from 1 to 3 ball-touches to return the ball back to the servers half, giving them (i.e. the servers) enough time to build up a defense.

Therefore we will now look at position tactics for when the opponent is serving.

The aims of the good positioning are:

- Preventing the ball from touching the floor in your own half.
- Each player should play the ball in their particular area so they do not have to move.

- Players who are not good at receiving opponents balls have only a small area to defend.

- Good positioning is necessary for a successful attack.

- Try to use a variety of tactics when attacking. These are a few examples.

If you choose EDIT SET UP you must choose a number between 0 and 9 according to the tactic you wish to change. Number 0 is the easiest. The positioning of the whole team is often characterised by the player that `places', and also from where he `places'. It is also important to know how many players are actively engaged in receiving an opponents service.

To work with the Editor we will assume that you have a joystick. For the keyboard the moves are the same using the cursor keys or ‹COPY› key.

The monitor is divided into two parts:

On the left is a simulation of a volleyball court with the players positions. The yellow circles mark the players positions before the opponents serve (FROM-position). After the service, all players who did not receive the service run to the red, empty circles (GOTO-positions). The GOTO-position should normally be the same as the FROM-position in the chosen OFFENSE tactics.

To achieve special effects it might be useful to divide the two positions (red and yellow) in order to confuse the opponent concerning the structure of your game. Beside the red and yellow circles you will find another blue circle. This is a special form of the FROM-position, a BLINDERS-position. When you mark a position with the blue circle, this player is only interested in getting to the GOTO-position as soon as possible. This means that the player will not take the ball when it drops beside him. Another player has to take such a ball. If a player, who should normally `place' the second ball, plays a ball, all of the positioning tactics are wasted. The attack then fails. Therefore you should only have one or more players positioned to receive a serve, the rest being ready to attack. FROM/GOTO-positions are connected with a line which gives an idea of the players path.

The FROM-positions of the players can be changed as follows:

- Press the key ‹1› on the top row of keys (not the letter blocks)

- With the keys ‹1› to ‹6› you choose the FROM- or BLINDERS-position you want to change.

It is impossible to design a prohibited position with the Tactics Editor.

The GOTO-positions of the players can be changed as follows:

- Press ‹SHIFT› and the ‹1› keys simultaneously and move the joystick.

To change a FROM-position to a BLINDERS-position, you must select the position by pressing ‹1› to ‹6› and then ‹DEL›. The FROM-position becomes blue. By pressing ‹DEL› again it returns.

On the right half of the monitor there are 6 rectangles which bear the numbers I to VI, referring to the positions. In every rectangle you may choose the direction and strength of the ball for each of the players. The direction of the ball will be shown with an arrow or square. Notice that an arrow pointing upwards does not necessarily mean that the ball will be played directly, but that the player will play the ball as if you pushed the joystick up. If you change the controls with the Control Editor, the ball will change direction. When the square is shown in the rectangle, the joystick is in the middle position.

You can change the direction as follows:

- Choose the player with keys ‹1› to ‹6› and then press and hold the fire button.

- When you move the joystick up or down you will see how the arrow rotates. In the rectangle below the direction indicator (arrow or square) you see a yellow beam in which a red line marks the ball-playing strength. You can alter this strength as follows:

- Choose a player ‹1› to ‹6› and press fire

- Move the joystick from left to right and the ball-playing strength will increase or decrease. When you have made all the alterations that you wish to make, press ‹ENTER›. You will then return to the main menu.

EDIT DEFENSE

The positioning tactics (SET UP) are only special types of DEFENSE tactics. Therefore use them in the same way. (All figures are able to move freely. There lies a difference between the FROM- and GOTO-positions). Of course, the moment when the player runs to his GOTO-position is different: As soon as the ball crosses the net, the players start running. But there is one exception; if a player is standing next to the landing position of the ball, and it is not marked as a BLINDER, this player tries to reach the ball and play it correctly. You also have the possibility to mark players as BLINDERS in the DEFENSE tactics, but this is not common. If the opponent has only one functioning attack, all players are needed for defense. It is‘ very uncommon for a forward player to be marked as a BLINDER. This is because a defense with three blocking players is not easy, with

two almost impossible. It is also unnecessary as a block does not count as a ball touch.

The players go to their front position when the ball crosses the net to their opponents half. They stay there until the ball comes back into their own field or another defense tactic is chosen.

You should take note of the following in order to be able to choose the right defense:

- Where is the best attacker of the opposition?
- Which type of shot is preferred by which attacker (strong, smash or lob)?
- Which of your own players is the best blocking player?
- Which type of defense allows the best preparation for an attack?

If you want to organise your own defense tactics, you should notice the following points:

- In your ten possible tactics do you have a defense for every possible attacking position?
- You should have at least a two-player block (2er) at the main attacking point of the opponent, or you should build up a prepared defense in the field.
- It makes sense to play without blocks when you play against a technically unsound opposition who use many lobs.
- If you are a player in The Volleyball Simulator it might be wise to place your figure in the middle. This is because there he will have a better chance to move against the computer operated figures.
- If you are not 100% confident at controlling your figure, it is better to mark him as a blinder (of course, only when he is in the back area). Note that it is important to prepare for the next attack, for example, by having a `placer'.

EDIT OFFENSE

The offense tactics are also placed and changed the same as the SET UP tactics. You may position your players anywhere as in the defense tactics. The only difference is the moment when the players take up their positions. After the first ball-touch, which is normally a `dredge', the players run to their front positions. With the second ball-touch, which is normally a `place', the players run to their GOTO-position. Marking as a BLINDER has a special function in this case. Normally there are one (sometimes two or three) players acting as a `placer' during an attack. Therefore, all other players are marked as BLINDERS. This has two

advantages: You know exactly which player takes the ball and you can therefore build up the attack. Secondly, only the `placer' needs a playing direction and strength. All other players will not take the ball.

When you put together your attack you can unleash your fantasies. Your opponent has no possibility to prevent it. Just try different tactics and use the ones which are successful, changing the others. But notice that both your opponent and the computer has the possibility to get to your tactics - and beat you with your own weapons!

EDIT CONTROL

This is a chapter for the experienced `Volleyball Simulator' player. Here you can change the technical elements of your players in detail and be even better than perfect! If you wish, you may complete the ball techniques with your own tactics. Using this program point you should note the following:

Imagine that one of your players prepares for the second ball-touch. You expect the ball to fly backwards when you push the joystick back, for example, to introduce the attack of a back player. However, if this back player wants to smash the ball with the third ball-touch, you do not expect him to smash backwards when you push the joystick back, but to play a high lob. Smashing, blocking or serving backwards makes no sense and would only limit the technical possibilities. Another example using the

Control Editor: The player rarely has to play the ball backwards over his head because behind him is no place for an attacker. Here it makes sense to direct the ball downwards. Instead of this it would be useful to have more possibilities to `swish' forward: Hit (a fairly fast, `placing' ball to the outside), banana (a high, curving ball which is very slow) or meter (a ball which only just goes over the net). How is the CONTROL-Editor working? Please select the Control-Editor with the joystick and press ‹FIRE›. Now you can choose from another menu the technical element you wish to change. There are 7 different techniques which you can change

- SERVICE
- LOWER PLAY (`dredging')
- UPPER PLAY (`swishing', `placing')
- SMASH
- BLOCK
- SPIKE (`dive', `japan roll')
- HEAD PLAY

Now select a program point. The screen is divided into 9 rectangles. Each rectangle is a joystick position. The middle rectangle is the middle position of the joystick. The top, right rectangle is the top, right position of the joystick, etc..

Every rectangle contains 3 different coloured beams and 3 numbers. The meaning of the beams: Each beam shows the playing strength in the appropriate direction. The x-direction is the horizontal direction, y is the vertical direction and z is the height. If you maximise the x value, the indicator goes to the right, then the strength of the ball played in the direction of the opponent will rise until it reaches its maximum (or vica versa). Below the 3 beams are 3 numbers. These show your changes. The first number (left) shows the playing angle of the ball into the x-y-direction. An angle of 0 degrees means that the ball is played straight up (but not in the sense of height, as this is shown by the z-direction). 90 degrees means the ball is played directly to your opponent. The second number shows the angle between x-y-plain and the z-direction. A value of 90 degrees indicates that the ball will go directly up perpendicular to the x-y-plain. Minus 90 degrees means that the ball will go directly downwards perpendicular to the x-y-plain. The third number moves between 0 and 127. This is the sum, according to pythagoras, of the 3 components, showing how hard the ball will be struck. With these numbers you can easily see with how much strength the ball will be served. These values can be changed as follows: One of the 9 rectangles has a different coloured frame. This can be altered. You select the beams with the joystick up or down. At the right side of the scale appears as arrow showing which beam is being edited. Press the joystick right or left and see how the indicator in the beam reacts. Depending on what value you wish to influence, the appropriate angle and playing strength will be recalculated.

To choose another rectangle, press ‹FIRE› and one of the direction keys simultaneously. With the ‹ENTER› key you return to the main menu.

SAVE

The SAVE instructions work in a similar way to the LOAD instructions. You also find the following structure here:

SAVE SET UP
SAVE DEFENSE
SAVE OFFENSE
SAVE CONTROL

As soon as you have selected one of the four points, you are asked for a name

for the tactic (CONTROL-block), under which it will be saved. Please note that there are limits when entering a name:
- It may not have more than 8 letters
- No special keys may be used, only letters and numbers
- Extensions are not allowed (eg, CTR control) because the program needs these keys
- All letters will automatically be changed into capitals. After saving, you return automatically to the main menu.

EXIT

If you select EXIT you will be asked for confirmation that you wish to leave the program. Answer with ‹Y›es or ‹N›o. If you choose `‹No›', you return to the main menu. Otherwise you return to the beginning. All changes are lost when you have not saved with the SAVE option!

Loading the Tactics Editor

Atari St:

Insert the Tactics-Editor disk into the disk drive. Start the program by double-clicking onto the TACTED.PRG field.

Amiga:

Press the F4 key. Firstly you are asked to insert the tactics disk into the disk drive. You can now load tactics, either from the tactics editor or ones that you have constructed yourself. After loading, the program returns to the main menu.

The Main Menu

When the loading process is completed you may select the single menu points of the Main Menu with the mouse. There are four Main Menu points: "Set-Up", "Defense", "Offense" and "Control". Each of these points are made-up of "Load", "Edit" and "Save".

Amiga only:

The three menu points "Load", "Save" and "Edit" are sub-menu points of "Offense", "Defense", "Set-Up" and "Control". There additionally exists a menu point "Exit" which allows you to return to the Volleyball Simulator.

Loading

With this function you can load existing tactics from disk. They will be displayed on the screen where they can be edited and saved.

Editing

Edit Set-Up

These position tactics explain the positions of the team members when they serve or receive a serve. This is easier when the team serves. This is because the opponent needs from 1 to 3 ball-touches to return the ball back to the servers half, giving them (i.e. the servers) enough time to build up a defense.

Therefore we will now look at position tactics for when the opponent is serving.

The aims of the good positioning are:

- Preventing the ball from touching the floor in your own half.
- Each player should play the ball in their particular area so they do not have to move far.
- Players who are not good at receiving opponents balls have only a small area to defend.
- Good positioning is necessary for a successful attack.
- Try to use a variety of tactics when attacking. These are just a few examples.

After choosing "Edit Set-Up" 6 playing positions will be indicated on the screen. The "from-position" is the position that the player takes before his opponent executes the service. After the service the figure moves to the "goto-position". These chosen positions should normally correspond with the selected offense tactics. A figure is selected by moving the mouse-cursor above it and then pressing the left mouse button. You can only move figures within the playing field.

Atari ST:

By pressing the right mouse button the player will be placed on his new position. The figures position can be exchanged with that of another figure. Return to the main menu by clicking onto it.

Amiga:

When the left mouse button is released, the figure will be re-positioned.

Edit Defense

These are the defense-tactics. The figure takes up his "from-position" after the ball crosses the net during a service or an attack. When the ball returns to the original half, the figure runs to it's "goto-position". See Edit set-up.

Edit Offense

The offense-tactics are set-up and changed as described under Edit set-up. The "from-position" should correspond with the "goto-position" of the "Set-Up" and "Offense" tactics. After the second ball-touch all players run to their "goto-positions" from where they can play the ball into the opponents half.

Edit Control

With Edit Control the parameters of the technical elements can be changed. 7 techniques exist which can be changed:

- Service
- Lower Play
- Upper Play
- Smash
- Block
- Spike
- Head Play

After you have selected a technical element you should click with the left mouse button. 9 boxes appear on the screen with their parameters. Each box represents a joystick control. The top-right box represents the top-right joystick control, etc...

Atari ST:

In each box the x-, y- and z-parameters will be displayed for the appropriate joystick movement. X and y are the directions and z is the height.

Amiga:

In each box the x-, y- and z-parameters will be displayed for the appropriate joystick movement. The parameters represent the speed with which the ball will be played.

The parameters are changed as follows:

Atari ST:

Place the mouse-cursor above one of the 9 boxes and press the left mouse button - the parameter can now be chosen. This is done using the `+' and `-' keys, as appropriate. When the right mouse button is pressed you leave the box. A different box is chosen by pressing the left mouse button for a short time. To return to the main menu, press the left mouse button for a little longer.

Amiga:

Place the cursor in the appropriate position and underline the word. The alterations will be made immediately.

Save

The tactics which you have worked on can be saved on disk with the `SAVE' function.

Atari ST:

Make sure that the tactics are saved in the correct extension of the file name each time. They are - .SET for Set-Up tactics - .DEF for Defense tactics - .OFF for Offense tactics - .CTL for Control tactics

Leaving the Program

Atari ST:

The program is left by selecting the menu point QUIT.

Amiga:

The tactics editor is left by selecting the menu point EXIT.

C64:

With the TACTICS EDITOR you are in a position to create your own tactics for your team. The Tactics Editor is made up of four menu points:

Defence Mode

This menu point allows you to construct a defence function. On the screen the playing area, with players, is shown with two additional arrows. With these you can specify to which position the ball should go after the first strike. The FROM-position can be controlled by pushing the joystick upwards or downwards. It informs you from where the TO-position will be played. The computer automatically displays the last set TO-position. By pressing the firebutton and moving the joystick either left or right at the same time, the desired 'playing-to' position can be changed. If the arrow of the FROM-position is on the EXIT field, you can leave the DEFENCE mode by pressing the firebutton. To make settings easier, the current TO and FROM positions of your team are displayed in the top area of the screen.

Offence Mode

The attacking tactics are set and changed in the same way as in the DEFENCE MODE. Here you specify to which position the ball should go after the second strike.

Skill Edit

In this sub-menu point the playing field, which is already know from the DEFENCE and OFFENCE MODE's, is displayed. The top display shows the current skills of the chosen playing figure. Using the arrow, the single positions are chosen as above. You switch between the single skills by moving the joystick left or right and pressing the firebutton simultaneouslyThere are four different skills that you can give your players:

- STRIKE IN I (Overarm)
- STRIKE IN II (Underarm)
- SMASH
- BLOCK

Various other skills, such as "swishing", "placing", "diving" and "dredging" are

given to the players by the program. Your own playing figure also has special skills, so that you can play deep and distant balls.

PC:

Items and commands are chosen with menus. Within these you use the cursor keys to move around. If the menu uses several screens, you can also use the Page Up and Page Down keys to switch between the different screens. You can select the desired item by pressing the Return/Enter key. If you do not select an item, you can use the ESC-key to leave the box.

Prompts are single-lined windows where you enter strings of characters. If the prompt contains a default, you can discard it by pressing any alphanumerical key which clears the prompt and restarts the entry with this character. Within the prompt you can edit your entry with the backspace key. Pressing ESC leaves the default unchanged and exits back to the program. Pressing the Return/Enter key ends the prompt.

Sometimes the program will ask you for a filename. In that case it first displays a prompt where you enter the name of the file. If you are not sure of specific parts of the name, you are allowed to enter standard MS-DOS wild cards. If your entry contains wild cards, the program displays a "file-select-box" from which you choose your file by moving the highlight with the cursor keys and pressing the Return/Enter key.

Basic Information about Tactics

Players

For every player the program creates an entry in the corresponding player-file. The information recorded there resembles the following format:

PlayerName max. 15 letters

Status tells you if the player is free for joining a new team or if he already is involved in a team.

GamesToGo, a counter which shows how many games are still left before the player he retires or becomes a trainer.

Agility reflects the players possibility to reach a ball even if he is too far away.

Condition modifies the agility during the game. A low condition means a fast shrinking agility.

There is also information about each shot the player can use according to his ability to get the ball and lead it in the desired direction.

Teams

A team consists of 6 players and a trainer. The structure resembles the following format:

TeamName max. 15 characters

Password max. 15 characters

ExternGames - You will have noticed that a player grows older with each game. This means that it is possible that a player which you have lent to someone else comes back overaged and unusable. To prevent this, you can specify the maximum number of external game a player can take part in.

TeamWork - This shows the ability of the team to play together as a team. It rises with every game (even if it's not won!) and shrinks by approximately 10 percent when a player leaves the team. FirstServer - The number of the player who makes the first service for his team in the game.

Each team also features a list of at least one tactic. The maximum number of tactics is virtually unlimited. A team can have as many tactics as there is room on the disk.

Tactics

Tactics are the heart of this game. They are relatively easy to understand. Like chess the game is divided into "moves". Each move is subdivided into three hits. We call these the dredge, the set and attack. For each hit we must first decide which player(s) will be involved. Then we decide in which major area he (or they) should take the ball. After these decisions we define in which minor area each player should stand after the move has been executed.

Explanation of the Menu-Selections

Team Edit Player Menu:
Info gives detailed information about selected player.
List all players in the team
Add a player to the team
Remove a player from a team
Service set the player who makes the first service in a game

Team Edit Tactics Menu:
Dump all tactics to selected device (choice of file, screen or printer)
List all tactics in a short format
Create a new tactic
Remove a tactic from team
New Order reorders tactcs

Player 1 Menu:
Each of the following points presents you with a FileSelectBox from where you can choose the file which should be handled. An exception is "New" which asks you also for a password to use with this file.
Open load old data
New create new data
Rename rename date
Pack removes deleted players
Delete delete data

Player 2 Menu:
List all players even if they are OUT or DEL.
Info gives detailed information about selected player
New creates new player with random statistics
Rename player
Delete player
Close player file

7. International Playing Regulations

Playing area: The court is a rectangle with the dimensions 18m x 9m.

Middle line: The middle line divides the court into two halves each 9m x 9m. It stretches across the width of the court to the side lines. In each half the forward line is bordered by the attacking line.

Air temperature: The temperature may not be less than 10 degrees celsius (50 f).

Illumination: The illumination must be directly above the floor, and be between 500 and 1500 lux.

Net: The net is 1m wide and 9.50m wide.

Net height: The net height must be 2.43m for men, and in the middle of the court.

Ball characteristics: The ball must be spherical.

Teams: A team consists of 6 players, 1 trainer, his assistant and a doctor or masseur.

Dress: This must be uniform, clean and the same colour.

Players positions: At the moment the ball is served, all players (with the exception of the servers themselves) must be in their own half of the court, in two lines each of 3 players. The 3 players along the net are the forward players and take the positions IV (front left), III (front middle) and II (front right). The other 3 players are back players with the positions V (back left), VI (back middle) and I (back right). Each of the back players must stand behind their respective front players when the ball is thrown (II before I, III before VI, IV before V). Also, the middle player must stand left from their right-hand player and right from their left-hand player (III stand right from IV and left from II, VI stands right from V and left from I). After the service, the player is allowed to leave his position and take up any desired place within his playing half.

Rotation of the players: If the team who receives the throw wins a rally, or their opponents make a mistake, then they win the right to serve and must rotate one place in an anti-clockwise direction. (Player in position I moves to position VI, player in position II moves to position I etc.).

Time-out: Regular interruptions are `time-out"s. The trainer must ask permission from the referee to take a `time-out', and it will be allowed when the ball is dead.

Results: Only the serving team can win points. The winner of a set is the first team to reach 15 points with a lead of at least 2 points (e.g. 15:8, 15:13, 16:14, 20:18 etc.).

The winner of the game is the first team to win 3 sets, conforming with the above rule.

Service: The right, back player (position I) brings the ball into the game. He is in the service zone, and strikes the ball with his hand in order to begin a rally.

Mistake by a server after he has struck the ball: A mistake is made when the ball touches an object, a member of the servers team, does not cross the net or falls outside of the opposition playing half before it has been touched by a member of the opposition.

Number of ball-contacts for each team: Each team has the right to touch the ball three times (a block is not counted as a `touch', see later) before it is played over the net back to the opponents playing half.

Ball contact occurs not only when a player touches the ball, but also when the ball touches a player.

A player, with the exception of the blocking player, is not allowed to touch the ball twice successively. He is, however, allowed to make the 1st and 3rd touches within a ball change.

The ball touches the net: Excepting when the ball is served, it is allowed to touch the net when played into the opponents half. A ball that is played into the net may be played again as long as it has not touched the floor, or has been touched three times already.

Touching the net: It is forbidden for a player to touch the net.

Forward players attacking shots: The forward players (positions II, III and IV) are allowed to play any attacking shot into the opponents playing area.

Back players attacking shots: The back players (positions V, VI and I) may play any attacking shot out of their playing half as long as they don`t touch or cross the attacking line when they jump. An attacking shot out of the forward area by a back player is not allowed.

Block: The block may only be played by a forward player, in order to keep an oncoming ball, coming out of the opponents area, in the vicinity of the net.

Ball contact after the block: The block does not count as a ball-touch. Any player may make the first touch of the ball after the block, including the person who made the block.

1. IL GIOCO DELLA PALLAVOLO

Nel gioco della pallavolo competono 2 squadre, composte ognuna da 6 giocatori. Entrambe le squadre cercano di impedire che la palla caschi nel loro campo. Per impedire che la palla tocchi il suolo, e per rilanclare la palla agli avversari, ogni squadra può colpirla 3 volte .
La palla è valida finchè un giocatore non commette un errore, come colpire 4 volte la palla o invadere l'altra metà del campo.
Il gioco comincia battendo la palla nel campo. Solo la squadra che sta battendo può vincere punti. Se la squadra avversaria vince la palla, ad esempio per un errore di servizio, viene cambiato il battitore.
Quando viene effettuato questo cambio,i giocatori della squadra che sta per battere devono cambiare posizione, girando in senso orario.
La squadra che vince 3 set vince la partita. Per aggiudicarsi un set bisogna conquistare 15 punti. In caso di parità il set continua finchè una delle 2 squadre non raggiunge un vantaggio di almeno 2 punti rispetto all'altra.

2. ISTRUZIONI DI CARICAMENTO

Amstrad CPC

Digitare RUN "VOLLEY" ‹ENTER›

Atari ST/Amiga

Inserire il dischetto nel drive e accendere il computer.

C 64

- cass: inserire la cassetta nel registratore,premere i tasti SHIFT + RUN/STOP e fare partire il registratore.
- disk: inserire il dischetto nel drive e digitare LOAD"*",8,1 ‹RETURN›

PC

Caricare il sistema operativo MS-DOS.Quando apparirà il prompt A› o C›, inserire il dischetto nel drive A e digitare A: ‹ENTER›. Pol digitare VOLLEY ‹ENTER› .
Per installare il programma su disco fisso,inserire il dischetto nel drive A e digitare A: ‹ENTER›
Poi digitare INSTALL C:‹ENTER›. Per far partire il gioco digitare CD VOLLEY ‹ENTER›. Pol digitare VOLLEY ‹ENTER›.

VOLLEYBALL SIMULATOR

LE CONCEPT DE JEU DE VOLLEYBALL

Au jeu de volleyball, deux équipes de chacune 6 joueurs se font face. Chaque équipe fera son possible pour que la balle ne touche pas son propre terrain mais celui de son adversaire.

Pour y parvenir, chaque équipe peut toucher 3 fois la balle. La balle restera dans le jeu tant qu'elle n'aura pas touché le sol, les bords, les murs ou autres objets ou tant que le joueur n'aura pas commis de fautes (par exemple si le joueur touche la balle pour la 4è fois ou dépasse la ligne du milieu).

C'est au milieu d'un service que la balle rentre dans le jeu. Ce n'est que l'équipe qui joue son service, qui peut gagner un point. L'adversaire gagne la partie, par exemple s'il n'a pas commis de faute et c'est alors au tour de l'autre.

Au cours d'un changement de service les joueurs d'une équipe à qui c'est le tour de servir, doivent changer de place en tournant dans le sens des aiguilles d'une montre.

L'équipe qui gagne est celle qui a gagné trois parties. Pour gagner une partie, l'équipe doit avoir obtenu au moins 15 points. Ce qui veut dire qu'elle doit avoir obtenu au moins 2 points de plus que l'équipe adverse.

CHARGEMENTS

AMIGA:

Allumez puis éteignez votre ordinateur pour enlever tous risques de virus. Quand l'écran "Workbench" apparaît, insérez la disquette dans le lecteur de disques DF0. Le programme débutera automatiquement.

ATARI ST:

Insérez la disquette 1 dans le lecteur de disque A: puis appuyez sur RESET. Le programme débutera automatiquement.

IBM PC et COMPATIBLES:

Démarrez votre ordinateur avec votre dernière version du DOS. Quand vous êtes au prompt, tapez ENTER. Alors tapez VOLLEY et ENTER.

Pour installer le jeu sur disque fixe, insérez la disquette dans le lecteur A: et appuyez sur ENTER. Tapez INSTALL C: et appuyez sur ENTER. Pour commencer à jouer tapez CD VOLLEY et appuyez sur ENTER. Alors tapez VOLLEY et appuyez sur ENTER.

C64 Disc:
Insérez votre disquette dans le lecteur de disque et tapez LOAD ":*",8,1 et appuyez sur RETURN. Le programme débutera automatiquement.
C64 Cassette:
Insérez la cassette (Face 1) et enroulez la bande au début. Appuyez sur SHIFT et RUN-STOP en même temps puis appuyez sur la touche PLAY de votre lecteur de cassette. Le programme débutera automatiquement.
AMSTRAD CPC disc:
Insérez la disquette dans le lecteur de disque et tapez RUN"VOLLEY" et appuyez sur RETURN. Le programme débutera automatiquement.
AMSTRAD CPC cassette:
Insérez la cassette (Face 1) et enroulez la bande au début. Tapez RUN"VOLLEY" et appuyez sur RETURN.